

# FRESH WATER FISH DIVERSITY IN ARALAM WILDLIFE SANCTUARY, KERALA, SOUTH INDIA<sup>1</sup>

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**Key words:** Aralam, freshwater, Kerala, Western Ghats

The rivers of Aralam Wildlife Sanctuary located in Kannur district, Kerala were surveyed in February 1995. Thirty three species of fishes were recorded. *Osteocheilus nashii* and *Noemacheilus nilgiriensis* were recorded for the first time from a west flowing river. Observation of *Puntius denisonii* indicates extension of range to the north of the Palghat gap in Western Ghats.

## INTRODUCTION

The recent thrust on biodiversity conservation necessitates documentation of fauna and identification of biodiversity hot spots in Western Ghats. Day (1865, 1878) contributed to the fish fauna of India and Malabar. Pillay (1929), John (1936), Hora and Nair (1941) and Hora and Law (1941) reported the freshwater fishes of Kerala, especially the Travancore region. However, the freshwater systems north of Palghat gap were comparatively unexplored. Rajan (1955) described the freshwater fishes of Bhavani River System. Remadevi and Indra (1986) documented the fishes of Silent Valley National Park. Recently, Shaji and Easa reported extension of range of *Danio* (*Brachydanio*) *rerio* and *Noemacheilus petrubanarescui* to fresh waters of northern Kerala. Easa and Shaji also reported addition of *Puntius melanampyx* to the fish fauna of Silent Valley. The present survey was conducted to document the freshwater fishes of Aralam Wildlife Sanctuary.

## STUDY AREA

Aralam Wildlife Sanctuary forms a part of the contiguous chunk of forests comprising Reserve forests of Karnataka, Tamil Nadu and Kerala. It is in the south-eastern side of Canannore district and is located between 11° 49' and 11° 50' E. lat. and 75° 49' and 75° 57' N. long. It is about 55 sq. km in

extent. Tropical wet evergreen forests form the major vegetation type. The area is drained by tributaries of perennial rivers Uruttipuzha and Cheenkannipuzha.

## METHODS

The study area was visited during February, 1995 and fishes were collected from five localities using cast nets, gill nets and scoop nets. Suitable conventional method of sieving by cloth and temporary bunding of tributaries were also employed in certain areas. Works of Day (1865, 1878), Jayaram (1981), Datta Munshi and Srivastava (1988), Talwar and Jhingran (1991) and Menon (1987, 1992) were referred for identification.

## RESULTS AND DISCUSSION

The survey indicates that the drainage system in Aralam is rich in fish diversity. A total of 33 species belonging to 15 families were collected from 5 localities (Table 1). Most of these are widely distributed in Kerala and other parts of Western Ghats. *Garra mullya*, *Barilius bakeri* and *Danio aequipinnatus* were the commonest and uniformly distributed fishes in Aralam Wildlife Sanctuary. *Puntius denisonii*, *Salmostoma acinaces*, *Mystus cavasius*, *Ompok bimaculatus*, *Clarias dussumieri*, *Parambassis thomassi*, *Etroplus suratensis*, *Channa marulius* and *Anguilla bengalensis bengalensis* were comparatively rare and confined to Cheenkannipuzha, the major river system of Aralam Wildlife Sanctuary.

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TABLE I  
SPECIES WISE DISTRIBUTION OF FISHES IN DIFFERENT LOCALITIES IN ARALAM WILDLIFE SANCTUARY

Species	Cheenkanni- puzha	Valayamchal Narikadavu	Chavachi- thodu	Urutipuzha	lyknam- thodu	Kurukka- thodu	Total No. of specimens	SL (in mm)
Family : CYPRINIDAE								
Sub-family: CYPRININAE								
1. <i>Puntius filamentosus</i> (Val.)	3	-	-	2	-	-	8	85-130
2. <i>P. denisonii</i> (Day)	1	-	-	-	-	-	1	101
3. <i>P. ticto ticto</i> (Ham.)	-	2	-	2	-	-	4	36-48
4. <i>P. curmuca</i> (Ham.)	9	-	-	-	-	-	9	152-197
5. <i>P. melanampyx melanampyx</i> (Day)	9	-	-	-	-	-	12	61-62
6. <i>P. amphibioides</i> (Val.)	-	3	-	-	-	-	3	94-99
7. <i>Osteochilus nashii</i> (Day)	3	3	-	-	-	-	10	75-137
8. <i>Tor khudree</i> (Sykes)	6	3	-	-	-	-	10	75-165
Sub-family: CULTRINAE								
9. <i>Salmostoma acinaces</i> (Val.)	1	-	-	-	-	-	1	123
Sub-family: RASBORINAE								
10. <i>Rasbora daniconius daniconius</i> (Ham.)	12	8	9	-	-	-	30	82-122
11. <i>Bariilus bakeri</i> Day	16	12	1	9	1	6	52	71-114
12. <i>Danio aequipinnatus</i> (McClelland)	11	7	1	2	1	8	49	56-90
Sub-family: GARRINAE								
13. <i>Garra mullya</i> (Skyles)	29	4	7	11	8	1	67	87-132
Family: HOMALOPTERIDAE								
14. <i>Bhavana australis</i> (Jerdon)	13	-	-	-	-	3	16	35-70
Sub-family: NOEMACHEILINAE								
15. <i>Noemacheilus triangularis</i> Day	10	6	2	-	-	1	19	46-69
16. <i>N. guentheri</i> Day	7	2	-	1	-	6	16	43-81
17. <i>N. nilgiriensis</i> (Menon)	-	-	-	-	-	11	11	32-42
Family: BAGRIDAE								
18. <i>Mystus malabaricus</i> (Jerdon)	1	-	1	-	-	1	3	110-140
19. <i>Mystus cavasius</i> (Ham.-Buch.)	1	-	-	-	-	-	1	71





*Osteochilus nashii* which has originally been reported from the east flowing Cauvery river system is reported for the first time from a west flowing river system. *Puntius denisonii* (Day) has so far been reported only from the Travancore hills (Day 1865). Later, Silas (1951) reported the species from the hill ranges of Anamalai and Nelliampathy. The present observation of *Puntius denisonii* (Day) from Aralam Wildlife Sanctuary indicates its range of extension to the north of Palghat gap. *Noemacheilus nilgiriensis* (Menon) has been reported only from Pykara Dam, Nilgiri District, Tamil nadu (Menon

1987). The present survey reports its occurrence for the first time in a west flowing river in Kerala.

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